AERODYNE NIGHTINGALE "THREE"

Circuit.—An H.F. valve, V.P.2 met. (V1), has a band-pass aerial coupling (iron-cored coils) and is coupled to the next valve by an H.F. transformer with tuned secondary. The variable-mu characteristic of this valve is used for volume control by means of a potentiometer across the G.B. battery.

The detector valve, P.M.1H.L. (V2) is operated as a leaky grid detector with reaction and is coupled to the output valve by parallel-fed transformer.

The output pentode, P.M.22A (V2) is stabilised by grid resistance, and is tone-compensated by a condenser across the primary of the output transformer of the permanent-magnet speaker.

VALVE READINGS

Use high resistance voltmeter. V.C. max.

Valves.	Type.	Electrode.	Volts.	M.A.
1	VP 2 met. (7) ..	anode ..	112	1.6
		aux.grid	112	.4
2	PMIHL met. (5)	anode ..	70	1.25
3	PM22A	anode ..	115	5.8
		aux. grid	120	1.2

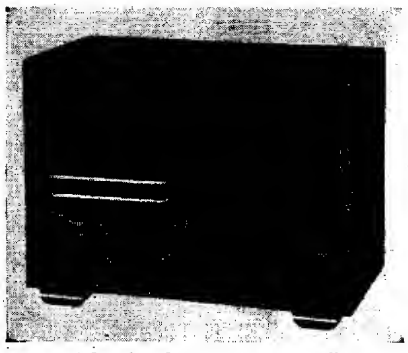
Special Notes.—The pilot lamp is an Osram 3.5-volt .15-amp. type.

Battery voltages are: H.T.+, purple lead, 120 volts.; G.B.– 1, blue, – 4.5 volts; G.B.– 2, green, – 9 volts.

Switching is in the L.T.–, G.B.+ lead.

Removing Chassis.—Pull off the knobs, undo two wood screws at top of dial (inside),

(*Continued on opposite page.*)



The Aerodyne "Nightingale."

CONDENSERS

C.	Purpose.	Mfd.
4	Band pass coupling	.05
5	Decoupling V1 anode	1
7	V2 grid reservoir	.00005
8	V2 anode H.F. by-pass	.0003
	L.F. coupling to transformer ..	.1
	Tone compensating V3 anode ..	.002
	Decoupling V2 anode	1
12	Band pass coupling (twisted wire)	3 mmf.

RESISTANCES

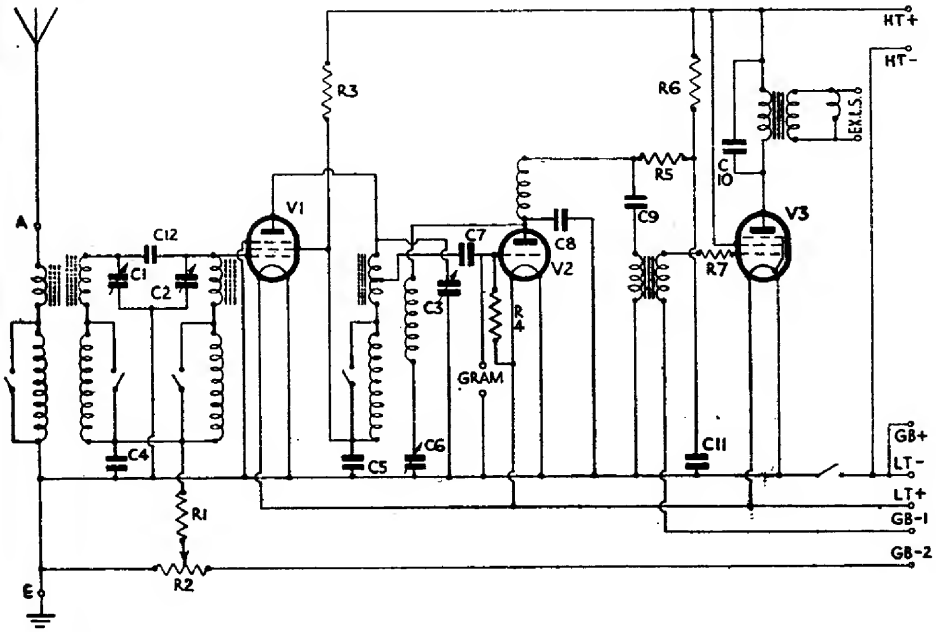
R.	Purpose.	Ohms.
1	Decoupling V1 grid	20,000
2	Volume control ptr. (var.) ..	8,000
3	V1 anode decoupling	3,000
4	V2 grid leak	2 meg.
5	V2 anode L.F. coupling ..	30,000
6	V2 anode decoupling	20,000
7	V3 grid stabiliser..	.25 meg.

AERODYNE NIGHTINGALE "THREE" (Cont.)

and remove three holding screws from underneath the cabinet.

General Notes.—This is a straightforward three-valve set with no complications. The small components are suspended in the wiring and are readily accessible.

Replacing Chassis.—Lay the chassis inside the cabinet, replace holding screws, two wood screws on dial, and press the knobs on to the spindles (see the top of chassis lay-out for the correct order).



The circuit of the Aerodyne is straightforward and the chassis construction correspondingly simple.